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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
HECK, MICHAEL C	
ART UNIT	**PAPER NUMBER**
3623	

DATE MAILED: 01/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/779,216	TSANG ET AL.	
	Examiner	Art Unit	
	Michael Heck	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 17 November 2003 has been entered.

2. Applicant's amendment of 17 November 2003 amended claims 1, 8 and 15. Currently, claims 1-21 are pending.

Response to Amendment

3. The objection to the drawings in the Final Office Action is withdrawn in response to the applicant's amendment to the drawings.

4. The objection to the specification in the Final Office Action is withdrawn in response to the applicant's amendment to the specification.

Response to Arguments

5. Applicant's arguments filed 17 November 2003 have been fully considered but they are not persuasive. Applicant asserts that Feldman (Feldman, S., The Answer Machine. (Information services management)(Industry Trend or Event), Searcher: The Magazine for Database Professionals, Vol. 8, No. 1, January 2000, Page 58 [DIALOG: file 16]) does not teach or suggest removing superfluous data elements and extracting metadata and actual body of a

document from documents found in databases. Additionally, the applicant asserts that even though Feldman discloses an intelligent agent system running an updated query periodically on all the web search engines, it does not disclose or suggest automatically and transparently modifying the search criterion received to generate a data analysis from the data stored in the database. Also, the applicant asserts that Feldman nor Baker et al. (Baker et al, Mine over Matter, Journal of Business Strategy, Vol. 19, No. 9, Jul/Aug 1998, Pages 22-26 [DIALOG: file 15]) disclose or suggest intelligent agents modifying search criterion to be used to generate a data analysis from the stored search results.

Feldman teaches intelligent agents that are information systems that learned what you sought and began to anticipate what you would like to see. Intelligent agents are software programs that use machine learning. The patterns or rules that they rely on is described by humans or developed by the agent-based system itself. Agent systems are autonomous and can initiate actions within a carefully defined set of rules. Agents will play a big part in the decision support systems where these systems use a knowledge base to find and compare previous situations that might apply to current problems, offering alternatives solutions and perhaps creating scenarios for each alternative (Para 37-42). Feldman describes intelligent agents as being able to initiate actions and offer solutions. Implicitly, the agent learns and modifies the search criteria and automatically initiates actions to perform a data analysis to generate alternative solutions and scenarios within the defined set of rules.

Additionally, Feldman teaches machine-aided and automatic indexing (MAI) that finds major concepts in texts, maps them to an internal thesaurus or controlled vocabulary, and applies indexing terms automatically. MAI systems extract important names from the text or

"disambiguate" terms. MAI particularly helps in handling such high volume tasks as assigning metadata terms to web documents. Feldman teaches automatic summation that summarizes whole documents, either by extracting important sentences or by rephrasing and shortening the original text and summarizing across multiple documents (Para. 50-56). In addition, Feldman teaches relationship extraction whereby, with extracted entities in hand, one can perform analyses across documents. Some systems can extract more than 60 different types of relationships, including some that describe time or tense and numbers (Para 60-62). Feldman also teaches text mining that finds facts and patterns within a database. Text mining looks at the whole database, not just a single document, and then extracts information from all the pertinent documents in order to reveal patterns over time or within a subject. These technologies perform some analysis on text in a database to present patterns, chronologies, or relationships to the user (Para 64). The superfluous data is left behind as the applicable data is extracted and analyzed. Metadata is assigned to web documents and is implicitly extracted with the data to maintain the indexing. The actual body of a document is extracted, such as, extracting important sentences to summarize the whole document.

The applicant further asserts that Baker et al. does not teach or suggest, "aggregating data gathered from networked sources, wherein the data includes a plurality of documents and cleaning said aggregated data by removing superfluous data elements and extracting metadata and actual body of a document", and "automatically and transparently modifying the search criterion". As indicated above, Feldman teaches data gathering from network sources and automatically modifying the search criteria and Baker et al. teaches generating a data analysis from said stored data after being appropriately "cleansed" and organized in a relational database

format (Para 11). As indicated below, Feldman and Baker et al. in combination teach the applicant's invention.

Drawings

6. The examiner notes that the amendment filed 17 November 2003 on page 10 references replacement sheets for Figure 1-10. In actuality, there are 10 figures that are referenced in Figures 1-8 with Figure 4 including Figure 4, 4A and 4B. A complete set was received.

Specification

7. The disclosure is objected to because of the following informalities:

- Page 7, line 11, delete "identified a departmental module as marking", and insert -- identified a departmental module as *marketing* --.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims **1-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Feldman (Feldman, S., The Answer Machine. (Information services management)(Industry Trend or Event), Searcher: The Magazine for Database Professionals, Vol. 8, No. 1, January 2000, Page

58 [DIALOG: file 16]) in view of Baker et al. (Baker et al, Mine over Matter, Journal of Business Strategy, Vol. 19, No. 9, Jul/Aug 1998, Pages 22-26 [DIALOG: file 15]). Feldman discloses a system of analyzing networked searches within business markets comprising:

- [Claim **1**] aggregating data gathered from networked sources, wherein the data includes a plurality of documents and cleaning said aggregated data by removing superfluous data elements and extracting metadata and actual body of a document (Para 2, 38-40, 50-56, and 60-65, Feldman teaches using the Internet to find and deliver information. Machine-aided and automatic indexing (MAI) finds major concepts in texts, maps them to an internal thesaurus or controlled vocabulary, and applies indexing terms automatically. MAI systems extract important names from the text or "disambiguate" terms. MAI particularly helps in handling such high volume tasks as assigning metadata terms to web documents. Automatic summation summarizes whole documents, either by extracting important sentences or by rephrasing and shortening the original text and summarizing across multiple documents. Feldman also teaches relationship extraction whereby, with extracted entities in hand, one can perform analyses across documents. Some systems can extract more than 60 different types of relationships, including some that describe time or tense and numbers. Text mining finds facts and patterns within a database. Text mining looks at the whole database, not just a single document, and then extracts information from all the pertinent documents in order to reveal patterns over time or within a subject. These technologies perform some analysis on text in a database to present patterns, chronologies, or relationships to the user. The superfluous data is left behind as the applicable data is extracted and analyzed. Metadata is assigned to web documents and is implicitly extracted with the data to maintain the indexing. The actual body of a document is extracted, such as, extracting important sentences to summarize the whole document.);

- storing said cleaned data in a database (Para 91, Feldman teaches Puffin Search that searches the Web and brings the results back to your desktop. It saves the search results. The examiner interprets the search results are saved in a database.);

- receiving a set of search criterion submitted by a user and automatically and transparently modifying the search criterion if a historical analysis of previous sets of search criterion provided and modified by the user indicates a refined version of the search criterion (Para 37-42, Feldman teaches intelligent agents that are information systems that learned what you sought and began to anticipate what you would like to see. Intelligent agents are software programs that use machine learning. The patterns or rules that they rely on is describes by humans or developed by the agent-based system itself. Agent systems are autonomous and can initiate actions within a carefully defined set of rules. Agents will play a big part in the decision support systems where these systems use a knowledge base to find and compare previous

situations that might apply to current problems, offering alternatives solutions and perhaps creating scenarios for each alternative. Feldman describes intelligent agents as being able to initiate actions and offer solutions. Implicitly, the agent learns and modifies the search criteria and automatically initiates actions to perform a data analysis to generate alternative solutions and scenarios within the defined set of rules.);

- generating a reporting analysis, and formatting the reporting analysis in accordance with previously submitted user preferences, wherein the reporting analysis is based on the search criterion provided by the user and the results from said data analysis (Para 55-56, Feldman teaches automatic summarization that either summarizes whole documents or summarizes across multiple documents).

Feldman fails to teach generating a data analysis from said stored data. Baker et al. teaches data mining tools extend decision support capabilities that allow managers to query information in databases and turn the results into reports. Data mining identifies, extracts, and analyzes the information contained in the cleansed, organized, and formatted relational database. Data mining tools automatically identify unusual data densities that are the signs of process variations and identify patterns of change (Para 10-11, and 20-21). It would have been obvious to one of ordinary skill in the art at the time of the applicant's inventions to include data mining with the teachings of Feldman since Baker et al. teachings teach that it is old and well known to use data mining to uncover useful patterns inside databases (Abstract). Feldman teaches information end users needs to find the right information quickly, analyze it, combine it into reports, summarize it for upper management, or use it to make decisions (Feldman: Para 2). Data mining uses statistical methods and search software to uncover useful patterns inside databases. Time is money and getting the right information and analyzing it is paramount to a company's success. Data mining allows companies to quickly capture details of business information and mission-critical relationships that affect their business allowing the managers to make time sensitive decisions that ensure the success of the business.

- [Claim **2**] applies performance metrics according to the data gathered from user (Baker et al.: Para 19-20, Baker et al. teaches analyzing historical performance in stores and identifying data densities that indicate process variations within manufacturing and assembly operations).

- [Claim **3**] is stored in consecutive order starting with the first reporting analysis conducted (Baker et al.: Para 13-15, Baker et al. teaches data mining helps turn warehoused data into predictive information, such as detecting deviations in key data from previous or expected values allowing users to use deviations to predict changes in future trends, outputs, or behaviors. Inherently, to perform a deviation analysis to predict future trends the data needs to be in consecutive order.).

- [Claim **4**] is updated subsequent to any additional reporting analysis conducted after the first reporting analysis is completed (Feldman: Para 5 and 67, Feldman teaches setting up a filter, profile or "standing query" which runs against any new additions to the database to support a search type of continuous monitoring of a subject.)

- [Claim **5**] focuses on particular industries and may be any of: marketing, support, finance, research and development, sales or executive (Baker et al.: Para 16 and 21, Baker et al. teaches data mining helps break the market into segments for the banking, credit card, and insurance industry and helps identify changes in the market for the telecommunications industry).

- [Claim **6**] focuses on particular departments within the particular industries and may be any of: high-technology, electronics, automotive, financial services or entertainment (Baker et al.: Para 17-18 and 21, Baker et al. teaches data mining helps find patterns of product usage and consumer behavior which helps improve the management of bank branches, automated teller machines, and service outlets and helps retail stores understand profit patterns. The marketing department in the telecommunications industry can better focus on customers who demonstrate an acceptance of service and longer usage.).

- [Claim **7**] may include publication listings and/or the timeframe in which these publications have been published (Feldman: Para 5 and 33, Feldman teaches a search type to include a chronological reconstruction of events or actions whereby, the system stores a document where each unit of meaning may carry a time stamp related to the content.).

Claims **8-14** and **15-21** recite substantially the same limitations as that of claims 1-7 with the distinction of the recited method being a system and an apparatus that includes computer

readable media with executable instructions. Hence the same rejection for claims 1-7 as applied above applies to claims 8-14 and 15-21, respectively.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Papierniak et al. (U.S. Patent 6,128,624) discloses combining improved methods of data collection, translation, and storage with enhanced analysis techniques.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Heck whose telephone number is (703) 305-8215. The examiner can normally be reached Monday thru Friday between the hours of 8:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq R. Hafiz can be reached on (703) 305-9643.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Any response to this action should be mailed to:

Commissioner of Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Or faxed to:

(703) 872-9306	[Official communications; including After Final communications labeled "Box AF"]
(703) 746-9419	[Informal/Draft communication, labeled "PROPOSED" or "DRAFT"]

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, Virginia, 7th floor receptionist.

mch
6 January 2004

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